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R. ELLSWORTH CALL WITH A BIBLIOGRAPHY OF HIS WORKS ON MOLLUSKS AND A CATALOGUE OF HIS TAXA

By RICHARD I. JOHNSON

Richard Ellsworth Call was a leading student of the fresh water molluscan fauna of the western United States during the last third of the nineteenth century. His collection of land and freshwater shells of North America is especially rich in Unionidae, most of which were collected by himself in the southern and western parts of the United States. As he said in 1898 in a letter to Alexander Agassiz offering the collection to the Museum of Comparative Zoology, "The collection numbers some 20,000 specimens. It is very rich in geographical series and in series selected for variation. The collection has cost me between four and five thousand dollars in cash. I do not place any value on it. The collection is valuable and ought to be in some place where it will be used. It is now well packed and easily cared for by any competent curator. Every shell is numbered and catalogued. The exact localities are invariably present on the labels or in the catalogue accompanying. Some groups, like Viviparidae, are complete. The Corbiculidae are nearly so and the exchange power of the collection is very considerable from the fact that many species are represented by fifteen to thirty specimens. The Unionidae are all numbered in ink on the interior of the shell. It is very fine indeed, larger far than the collection which went to the U. S. National Museum as the Lea collection. It contains many shells named by Lea, who was for many years a correspondent, some of Say's types, and all of the forms which I myself described as new."

Fortunately, Agassiz accepted the collection for which Call wanted only a complete set of the Museum's publications to date. While he would accept any monies that the authorities might care to send him from \$50.00 up, this was not required, since his chief interest was that the collection be placed where it would be studied and be of use to others.

Walter Faxon, Assistant in charge of Crustacea and Mollusks, duely acknowledged receipt of the collection as a gift in the Annual Report of the Museum for 1897-98 (p. 31) noting that the collection amounted to some 40,000 [*sic*] specimens.

R. Ellsworth Call, as he preferred to be known, was born in Brooklyn, New York on May 13, 1856. He wrote his first paper on mollusks in 1878, when he was 22, and continued to contribute to the literature until 1902. He received an A.B. from Indiana University, Bloomington in 1890, and an A.M. in 1891, and somehow managed to also earn an M.S. from Iowa State College in 1890 as well. In 1893 he became an M.D. graduating from the Hospital of the College of Medicine, University of Louisville, Kentucky. Finally Call became a Ph.D. from Ohio University, Athens, the oldest university in the Northwest Territory, in 1895.

At the age of 28 Call was an aid with the U. S. Geological survey, and during 1884-85 explored Utah and Nevada for mollusks, as well as carrying out his geological responsibilities. He remained in the West for many years. From 1885-86 he was principal of the high school in Moline, Illinois, then between 1887-88 he was an assistant professor of zoology at the University of Missouri, Columbia. During 1889-92 he taught science at the West Des Moines, [Iowa], high school. In 1892 he moved to Louisville, Kentucky, where he remained until 1895, teaching chemistry and physics at the Manual Training High School. From 1895-98 Call was superintendent of schools at Lawrenceburg, Indiana. It was at the end of this appointment that Call offered his collection to Agassiz. Afterward, he returned to Brooklyn, where he taught at Erasmus Hall, then the city's most prestigious high school, from 1898-99.



R. Ellsworth Call

1856-1917

From an original photograph in the A. F. Gray collection of portraits in the Mollusk Department in the Museum of Comparative Zoology, taken between 1895-1898 while Call was a resident of Lawrenceburg, Indiana. There is also a photograph in the collection of Call at the age of 22, taken in Mohawk, New York, as well as one made in Des Moines, Iowa, presumably between 1888-1892.

Plate 15

During 1899 he became curator of the Children's Museum of the Brooklyn Institute of Arts and Sciences. He left this post to become an instructor in biology and physiology at DeWitt Clinton High School, New York City in 1905. He died in 1917.

In reviewing Call's career, one is bound to speculate as to why he occupied so many positions in so many places; perhaps he was a wanderer by nature, peradventure he had an irascible nature. I prefer to think that he was more interested in pursuing his studies in mollusks than in promoting his academic career.

In 1884, Call was appointed by Francis W. Craigin of Washburn College, Topeka, Kansas, to conduct a survey of the fresh water mollusks of the state. The resulting publication, based largely on his own collecting, was the first one dealing with the geographical distribution of this fauna in Kansas.

During the summer of 1888 Call volunteered his services to the Geological survey of Arkansas. The result was an impressive geological tome (1891), and a study of the Unionidae of the state (1895). Until Call's latter paper appeared, almost nothing was known about the geographic distribution of the Unionidae of Arkansas. While a resident of Louisville, Kentucky, Call wrote an excellent biography of C. S. Rafinesque (1895) which includes the first bibliography of this prolific naturalist. Later (1899) he reprinted Rafinesque's early work on the fishes of the Ohio River. Call also collaborated with H. C. Hovey (1897) to produce an illustrated guide to Mammoth Cave, Kentucky. Call's most important work was his Descriptive Illustrated Catalogue of the Mollusca of Indiana (1901).

Call had a very modern view of the synonymy of the North American Unionidae both as to the number of valid species, and to the problems of priority caused by the adoption of the often earlier, sometimes ill defined descriptions of Lamarck and Rafinesque.

Concerning the number of species, he wrote to A. J. Jukes Browne in 1900: "I do not think that there are more than 250 good species of *Unio* in North America, though

as you know, more than 900 have been described." This is much closer to the number now recognized than anyone until recently cared to admit.

REFERENCES

- CALL, R. E. 1898. Letter to Alexander Agassiz concerning the disposition of Call's collection. Dept. of Mollusks Library, Mus. Comp. Zool. no. 8093.
- . 1891. The geology of Crowley's Ridge. Ann. Rept. Geol. Survey of Arkansas for 1889. 2: 1-283, 2 maps col., text ill.
- . 1895. The life and writings of Rafinesque. Filson Club Louisville, Kentucky. Pub. no. 10, pp. i-xii, 1-227, 3 pls. 2 portraits 4to.
- . 1899. Ichthyologia Ohiensis . . . A . . . reprint . . . with a sketch of the Life . . . of Rafinesque. Cleveland, [Ohio] pp. 1-175, 1 portrait, 1 text ill.
- . 1900. Letter to A. J. Jukes Browne. Copy of letter in the author's collection. Dept. of Mollusks Library, Mus. Comp. Zool. no. 8093.
- . 1906 & 1910. [in] Cattell, J. M. American Men of Science, Lancaster, Pennsylvania.
- FAXON, W. 1898. [in] Ann. Rept. Curator of Mus. Comp. Zool., Harvard College . . . for 1897-98., p. 31.
- HOVEY, HORACE C. and R. E. CALL. 1897. The Mammoth Cave of Kentucky. An illustrated manual. Louisville, Kentucky. pp. i-v, 1-112, 21 pls., 1 map.

ACKNOWLEDGMENTS

Thanks are due to Dr. Kenneth Jay Boss and Mr. M. K. Jacobson for reading the manuscript and making several helpful suggestions. Dr. Joseph H. Peck, kindly checked the collection in the Department of Paleontology at the University of California, Berkeley, for a type which Call deposited there. Dr. C. H. W. Hirs of the Division of Biological Sciences, Indiana University, Bloomington, informed me that the Call collection which had been at that University was subsequently transferred to the Museum of Zoology, University of Michigan, Ann Arbor, where Drs. John B. Burch, Henry van der Schalie and Charlotte M. Patterson made the collection available to me.

BIBLIOGRAPHY OF R. ELLSWORTH CALL'S WORK ON MOLLUSCA

1878. Mode of distribution of freshwater mussels. *American Naturalist* 12: 472-473.
1880. Reversed Melanthones. *American Naturalist* 14: 207-208.
1880. Polymorphous *Anodonta*—variability of the American forms. *American Naturalist* 14: 529-530.
1880. Geology and natural history of Fremont County, Iowa. [in] *History of Fremont County, Iowa*. Des Moines, Iowa. [Mollusks are treated on pp. 34-36. Thirty-three species of freshwater mollusks are listed on p. 35].
1881. New Texan *Unio* (*Unio bollii*). *American Naturalist* 15: 390-391. [Reprints were distributed as pp. 391-392.]
1881. Note on *Succinea campestris* and *S. aurea*. *American Naturalist* 15: 391-392.
1881. [Obituary of] Dr. James Lewis. *American Naturalist* 15: 506-508.
1881. Recent land and freshwater shells in the Iowa Loess. *American Naturalist* 15: 585-586.
1882. Note on the geographical distribution of certain mollusks. *American Naturalist* 16: 400-402. [Reprints were distributed as pp. 401-402.]
1883. Notes on the genus *Campeloma* of Rafinesque. *American Naturalist* 17: 603-608.
1884. On the Quaternary and Recent Mollusca of the Great Basin, with descriptions of new forms. *Bull. U. S. Geological Survey*, no. 11: 367-420 (13-66), pls. 2-6.
1884. Notes on a Nevada shell (*Pyrgula nevadensis*). By R. Ellsworth Call and C. E. Beecher. *American Naturalist* 18: 851-855, text figs. and table.
1885. A geographic catalogue of the Unionidae of the Mississippi Valley. *Bull. Des Moines [Iowa] Acad. Sci.* 1 (1): 5-57.
1885. Description of a new species of *Unio* from Kansas (*Unio popenoi*). *Bull. Washburn College [Topeka, Kansas] Lab. Nat. Hist.* 1 (2): 48-49, pls. 2, figs. 1-4.
- 1885-1887. Contributions to a knowledge of the fresh water Mollusca of Kansas. Pts. 1-6. *Bull. Washburn College Lab. Nat. Hist.* 1 (2): 49-51, pt. 1; 1 (2): 49-54, pt. 2; 1 (3): 93-97, pt. 3; 1 (4): 115-124, pt. 4; 1886, 1 (6): 177-184, pt. 5; 1887, 2 (8): 11-25, pt. 6.
1886. On the genus *Campeloma* Rafinesque, with a revision of the species recent and fossil. *Bull. Washburn College Lab. Nat. Hist.* 1 (5): 149-165, pls. 3-6, text figs.

1886. Description of a new streptomatid mollusk of the genus *Gonio-basis* (*G. ozarkensis*). Bull. Washburn College Lab. Nat. Hist. 1 (7): 189-190, pl. 7, figs. 1-10.
1886. Description of a new rissoid mollusk (*Bythinella aldrichi*). By R. Ellsworth Call and C. E. Beecher. Bull. Washburn College Lab. Nat. Hist. 1 (7): 190-192, text fig., pl. 7, figs. 11-14.
1886. Notes on the land Mollusca of the Washburn College Biological survey of Kansas. Bull. Washburn College Lab. Nat. Hist. 1 (7): 201-206, text. fig.
1886. On certain Recent, Quaternary and new fresh water Mollusca. Proc. Davenport [Iowa] Acad. Nat. Sci. 5: 1-8, pl. 1, text figs. 1-4.
1886. On *Pyrgulopsis*, a new genus of rissoid mollusk, with descriptions of two new forms. By R. Ellsworth Call and H. A. Pilsbry. Proc. Davenport Acad. Nat. Sci. 5: 9-14, pl. 2.
1887. Note on the ctenidium of *Unio aberti* Conrad. American Naturalist 21: 857-860, figs. 1-2.
1887. Descriptions of two new species of the genus *Unio* from the Ozark Region of Missouri. Proc. United States Natl. Mus. 10: 498-500, pls. 28-29.
1888. On a new Post-Pleiocene limnaeid. American Geologist 1: 146-148, figs. 1-6.
1888. On the gross anatomy of *Campeloma*. American Naturalist 22: 491-497, pl. 7, figs. 1-3.
1890. On a new fossil limnaeid from the Post-Pleiocene of California (Abstract). Proc. [Des Moines] Iowa Acad. Sci. for 1887-9, 1: 17.
1890. Notes on the gross anatomy of *Campeloma* (Abstract). Proc. [Des Moines] Iowa Acad. Sci. for 1887-9, 1: 16-17.
1890. The *parvus* group of Unionidae (Abstract). Proc. [Des Moines] Iowa Acad. Sci. for 1887-9, 1: 45-51.
1890. The geology of Crowley's Ridge, Arkansas. Proc. [Des Moines] Iowa Acad. Sci. for 1887-9, 1: 52-53. [Mentions fossil Ostreidae].
The 4 papers above and 3 others not dealing with mollusks were reprinted under the title, Papers published in abstract in the Proc. Iowa Acad. Sci. for 1887-9 by R. Ellsworth Call.]
1891. Description of a new Pelecypod mollusk of the genus *Mytilus*, from the Tertiary of Eastern Arkansas. [In] Ann. Rept. Geol. Survey of Arkansas for 1889, 2, The geology of Crowley's Ridge, pp. 202-203.

140 OCCASIONAL PAPERS ON MOLLUSKS

1894. A contribution to the knowledge of Indiana Mollusca. Proc. [Indianapolis] Indiana Acad. Sci. for 1893, 3: 140-156.
1894. On the geographic and hypsometric distribution of North American Viviparidae. American Jour. Sci. 48: 132-141, 1 map.
1895. The Unionidae of the Ohio River. (Abstract). Proc. Indiana Acad. Sci. for 1894, 4: 139-140.
1895. The Streptomatidae of the Falls of the Ohio. (Abstract). Proc. Indiana Acad. Sci. for 1894, 4: 140-143.
1895. A study of the Unionidae of Arkansas, with incidental reference to their distribution in the Mississippi Valley. Trans. Acad. Sci. St. Louis [Missouri] 7 (1): 1-65, 21 pls.
1896. Illustrations of little known Unionidae. Jour. Cincinnati [Ohio] Soc. Nat. Hist. 18: 157-160, pl. 6.
1896. Second contribution to a knowledge of Indiana Mollusca. Proc. Indiana Acad. Sci. for 1895, 5: 135-146.
1896. A revision and synonymy of the *parvus* group of Unionidae. Proc. Indiana Acad. Sci. for 1895. 5: 109-119, pls. 1-6.
1896. On a small collection of Mollusks from Northern Indiana (as Indiana University Biological Station Report on Mollusca on cover of reprint). Proc. Indiana Acad. Sci. for 1895, 5: 246-250.
1896. Fishes and shells of the Falls of the Ohio. [In] Memorial History of Louisville, Kentucky, 1, Chapter 2, 9-20 [Mollusks], pp. 17-20.
1897. Some notes on the flora and fauna of Mammoth Cave, Kentucky. American Naturalist 31 [Mollusks]: 387-388, pl. 10, figs. 6-7.
1897. The hydrographic basins of Indiana and their Molluscan fauna. Proc. Indiana Acad. Sci. for 1896, 6: 247-258, 1 map.
1900. A descriptive illustrated catalogue of the Mollusca of Indiana. 24th Annual Rept. Dept. of Geol. and Nat. Resources Indianapolis, Indiana for 1899, pp. 337-535, pls. 1-78, Index, pp. 1013-1017.
1902. The European pond-snail. Science, (n.s.) 16: 65.

Complete sets of the above papers are to be found in the Library of the Department of Mollusks as well as in the library of the Museum of Comparative Zoology, and that of the author.

Molluscan taxa introduced by R. Ellsworth Call with their original references, type localities, and the location of the extant types.

For convenience of reference, the following list is arranged alphabetically by species. All locality data in brackets were found in original labels or are additions from recent maps.

ABBREVIATIONS

ANSP — Academy of Natural Sciences of Philadelphia, Pennsylvania.

MCZ — Museum of Comparative Zoology, Cambridge, Massachusetts.

aldrichi Call and Beecher, *Bythinella*: 1886, Bull. Washburn College Lab. Nat. Hist. 1: 190, pl. 7, figs. 11–14 (small spring and brooklet, tributary to the Black River, in the Ozark Mountains, Reynolds Co., Missouri). Figured syntypes MCZ 2057 [not located].

bollii, *Unio*: 1881, Amer. Nat. 15: 390 (Colorado River, [Austin, Travis Co.], Texas). Lectotype MCZ 5017 selected by Johnson, 1956, Bull. Mus. Comp. Zool. 115: 108, pl. 1, fig. 2.

bonnevillensis, *Limnophysa*: 1884, Bull. U. S. Geol. Survey, no. 11: 18 (372), 48 (402), pl. 6, figs. 10–13 (Upper Bonneville Lake beds, Kelton, [Boxelder Co.], Utah; Quaternary). Figured syntypes MCZ 4154 [not located].

breviculus, *Unio*: 1887, Proc. U. S. Natl. Mus. 10: 499, pl. 28 (Currant River, Shannon Co., Missouri, and in Jacks Fork and Big Creek, tributaries to it). Lectotype here selected, MCZ 5020, male specimen portrayed in figs. 1, 1a, 1b from Jacks Fork [Shannon Co.]; figured allotype MCZ 5023 portrayed in figs. 2, 2a, 2b, from Big Creek [Fork, Texas Co.].

cragini, *Triodopsis*: 1886, Bull. Washburn College Lab. Nat. Hist. 1: 202, fig. 5 (Banks of Chetopa Creek, Neosho Co., Kansas). Figured holotype MCZ 3123; paratypes MCZ 3124.

dalli, *Annicola*: 1884, Bull. U. S. Geol. Survey, no. 11: 21 (375), 45 (399), pl. 6, figs. 4-6 (Foot of Pyramid Lake, Semons stage station [not located, Washoe Co.], Nevada). Figured holotype MCZ 2087; paratypes MCZ 2088.

floridense, *Campeloma*: 1886, Bull. Washburn College Lab. Nat. Hist. 1: 159, pl. 6, fig. 7 (Florida). [ms. name in the synonymy of *C. limum* Anthony]. Lectotype MCZ 189529, Wekiva River, Orange Co., Florida, selected by Clench and Turner, 1956, Bull. Florida State Mus. [Gainesville] 1: 117, pl. 1, fig. 9.

hamatoides, *Mytilus*: 1891, [in] Ann. Rept. Geol. Survey of Arkansas for 1889, 2: 202, text fig. (Claiborne beds, Eocene Tertiary; Little Crow Creek, St. Francis County, Arkansas). [Location of the type not known.]

hockingensis 'Moores' Call, *Anodonta*: 1880, Amer. Nat. 14: 530 [*nomen nudum*].

mississippiensis Call and Pilsbry, *Pyrgulopsis*: 1886, Proc. Davenport Acad. Nat. Sci. 5: 13, pl. 2, figs. 14-16 (Mississippi River, near the mouth of Rock River, Rock Island Co., Illinois). Lectotype ANSP 61609a selected by Baker, 1964, Proc. Acad. Nat. Sci. Phila. 116: 174 specimen portrayed in fig. 15; types also mentioned as in the Call colln. but not in the MCZ [lost].

ozarkensis, *Goniobasis*: 1886, Bull. Washburn College Lab. Nat. Hist. 1: 189, pl. 7, figs. 1-10 (Blue Springs, Eminence, Shannon Co., Missouri). Lectotype, here selected, MCZ 175785, specimen portrayed in fig. 2; figured paralectotypes MCZ 1601.

- ozarkensis*, *Unio*: 1887, Proc. U. S. Natl. Mus. 10: 498, pl. 27 (Currant River, Shannon Co., Missouri, and in Jacks Fork and Big Creek, tributaries to it). Lectotype, here selected, MCZ 5707, male specimen portrayed in figs. 1-3, original R. E. Call no. 5307; figured allotype MCZ 5705 portrayed in fig. 4 original R. E. Call no. 5306; *both* from Jacks Fork [Shannon Co.].
- Pompholopsis*, Subgenus. 1888, Amer. Geologist 1: 148. Type species, *Pomoholox whitei* Call, by monotypy.
- popenoi*, *Unio*: 1885, Bull. Washburn College Lab. Nat. Hist. 1: 49, pl. 2 (Fall River, Wilson Co., Verdigris River; *both* Kansas). Figured holotype MCZ 4934 from Fall River. Is *Unio aberti* Conrad, *teste* Call, 1887, Amer. Nat. 21: 860.
- Pyrgulopsis* Call and Pilsbry, Genus: 1886, Proc. Davenport Acad. Nat. Sci. 5: 9. Type species, *Pyrgula nevadensis* Stearns, original designation.
- somersii* 'Moores' Call, *Anodonta*: 1880, Amer. Nat. 14: 529 [*nomen nudum*].
- spinus* Call and Pilsbry, *Pyrgulopsis*: 1886, Proc. Davenport Acad. Nat. Sci. 5: 14, pl. 2, figs. 17-19 (Comal Creek, New Braunfels [Comal Co.], Texas). Types mentioned as in collns. of Call and Pilsbry. [Not found in either the MCZ or ANSP.]
- stearnsiana*, *Goniobasis*: 1886, Proc. Davenport Acad. Nat. Sci. 5: 1, fig. 3 (Dykes Creek, tributary to the Etowah River, Floyd Co., Georgia). Figured holotype MCZ 1660; paratype MCZ 1661.
- stygium*, *Carychium*: 1897, Amer. Nat. 31: 387, pl. 10, figs. 6, 7 (Mammoth Dome, Mammoth Cave [Edmonson Co.], Kentucky). Figured type in Call colln. at Indiana University, Bloomington, *teste* Call. [The collection was transferred to the Museum of Zoology, University of Michigan, Ann Arbor, but the type is lost.] Specimens from Call ANSP 68147 figured by Pilsbry, 1948, Acad. Nat. Sci. Phila. Monographs, no. 3, 1 (2): 1055, fig. 563. a, b.

- uintaense*, *Sphaerium*: 1886, Proc. Davenport Acad. Nat. Sci. 5: 8, text fig. 4 (Lake in the Uinta Mountains, Utah; elevation of 10,500 feet). Figured holotype MCZ 4859; paratypes MCZ 4848.
- utahensis*, *Radix ampla*: 1884, Bull. U. S. Geol. Survey, no. 11: 19 (373), 47 (401), pl. 6, figs. 7-9 (Lake Utah, near Lehi, [Utah Co.], Utah). Figured holotype MCZ 4036; paratypes MCZ 4037.
- utahensis*, *Valvata sincera*: 1884, Bull. U. S. Geol. Survey, no. 11: 22 (376); 44 (398), pl. 6, figs. 1-3 (Lake Utah, near Lehi, [Utah Co.], Utah, not far from the head of the River Jordan). Figured holotype MCZ 2522.
- whitei*, *Pompholys (Pompholopsis)*: 1888, Amer. Geologist 1: 148, figs. 1-3 (Tassajara Hills, California; post-Pleiocene). Types in the cabinet of the State University, Berkeley, California, *teste* Call. [Not located in 1975, *teste*, J. H. Peck.]